

**AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES MADE,  
AND LISTING OF ALL CLAIMS WITH PROPER IDENTIFIERS**

- 1.-2. (Canceled)
3. (Currently amended) The optical sensor as claimed in claim [[1]] 4, further comprising a sensor flange supported by the sensor shaft via the bearing, wherein the ferrofluid seal includes a magnet which is magnetized axially and has opposite end faces, two of said flux guide element disposed respectively at the end faces for defining two of said sealing gap for ferrofluid liquid.
4. (Currently amended) An optical sensor for an electrical machine, comprising:  
a sensor shaft defining an axis;  
a bearing for support of the sensor shaft;  
a coding disk disposed on the sensor shaft at a distance to the bearing;  
and  
a ferrofluid seal disposed in the direction of the axis between the bearing and the coding disk in close proximity to the bearing and in close proximity to the coding disk so as to prevent lubricant from migrating from the bearing toward the coding disk, said ferrofluid seal including ferrofluid liquid aligning in a sealing gap between the sensor shaft and a confronting end of a flux guide element of the ferrofluid seal.
5. (Previously presented) The optical sensor as claimed in claim 4 wherein the bearing is constructed to support the sensor shaft without play.

6. (Currently amended) The optical sensor as claimed in claim 4, wherein the ferrofluid seal includes a magnet which is magnetized in axial direction so as to generate a magnetic field which is closed via the sensor shaft to effect the alignment of the ferrofluid liquid, said flux guide element disposed at one end face of the magnet[.,,].

7.-8. (Canceled)